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Patent Claims

- 5 1. A control system (1) for a motor vehicle, having
- a manual operating means (3) having a plurality of
degrees of freedom for selecting and/or activating
entries in a menu structure with a plurality of
menu levels, and
- 10 - a screen display (2) with a plurality of
presentation areas (210 to 250) representing the
menu structure, where the presentation areas (210
to 250) respectively comprise at least one field
for presenting one of the entries (1.1 to 5.7),
- 15 characterized in that
on at least one level of the menu structure in at least
one of the presentation areas (210 to 250)
- at least one first entry (E2, E4, E8) can be
selected and/or activated and/or set by an
20 adjusting movement with a first or a second of the
plurality of degrees of freedom for the manual
operating means (3), where the first and the
second degree of freedom correspond to an
25 orientation of the at least one first entry (E1 to
E5, E8) in an active presentation area (230.8,
230.1) on the screen display (2),
- at least one second entry (E1, E5, E9) can be
activated and/or set after the adjusting movement
with the first or second degree of freedom by
30 subsequently holding the operating means (3), and
- the at least one active presentation area (230.1,
230.8) is exited by an adjusting movement with a
third and/or a fourth degree of freedom for the
manual operating means (3), the third and the
35 fourth degree of freedom being at right angles to
the orientation of the at least one first entry
(E1 to E5, E8).

2. The control system as claimed in claim 1, characterized in that the at least one second entry (E9) has the same orientation as the at least one first entry (E8).

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3. The control system as claimed in claim 1 or 2, characterized in that the second entry (E9) represents a detail presentation of the activated and/or set first entry (E8).

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4. The control system as claimed in one of claims 1 to 3, characterized in that the at least one first entry (E8) is in the form of a line strip, with each line representing a selectable subentry of the same type.

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5. The control system as claimed in claim 4, characterized in that the at least one first entry (E8) can be set by a cursor (231.1) which is in the form of a bar and which can be positioned on one of the lines using the manual operating means (3) by operating with the first or second degree of freedom.

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6. The control system as claimed in one of claims 1 to 5, characterized in that the at least one second entry (E8) is in the form of a level indicator, the current level being able to be presented by a cursor (231.2) which is in the form of an alterable bar.

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7. The control system as claimed in claim 6, characterized in that the current level can be set using the manual operating means (3) by operating with the first or second degree of freedom and subsequently holding the operating means (3).

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8. The control system as claimed in claim 6 or 7, characterized in that the level indicates a current position or an elapsed time period within the second

entry (E9).

9. The control system as claimed in one of claims 1 to 8, characterized in that the at least one first entry (E8) represents a plurality of selectable radio or television stations or music titles or video clips within an audio application and/or a video application and/or a television application.

10 10. The control system as claimed in one of claims 1 to 3, characterized in that the at least one first entry (E2, E4) activates a "next entry" function or a "previous entry" function within an audio application and/or a video application and/or a television application.

20 11. The control system as claimed in one of claims 1 to 10, characterized in that the at least one second entry (E1, E5, E9) activates and/or presents a "fast forward" function or a "fast rewind" function or a "station search" function within an audio application and/or a video application and/or a television application.

25 12. A control system (1) for a motor vehicle, having
- a manual operating means (3) having a plurality of degrees of freedom for selecting and/or activating entries in a menu structure with a plurality of menu levels, and

30 - a screen display (2) with a plurality of presentation areas (210 to 250) for presenting the menu structure, where the presentation areas (210 to 250) respectively comprise at least one field for presenting one of the entries (1.1 to 5.7),

35 characterized

in that at least one entry has at least one associated parameter (Para 1 to Para 6) which can be set on at least one level of the menu structure,

- where at least one first parameter (Para 3, Para 4, Para 6) can be altered by an adjusting movement of the manual operating means (3) with a first and/or a second of the plurality of degrees of freedom, where the first and/or the second degree of freedom correspond to an orientation of the alterable parameter (Para 3, Para 4, Para 6) in the active presentation area (230.2, 230.5, 230.6), and
 - 10 - where an adjusting movement with a fifth degree of freedom for the manual operating means (3) stores the altered first parameter (Para 3, Para 4, Para 6) and exits the active presentation area (230.2, 230.5, 230.6).

15 13. The control system as claimed in claim 12, characterized in that the at least one first parameter (Para 3, Para 4, Para 6) represents a "balance" or "volume" or "bass" or "treble" function within an audio application.

20 14. The control system as claimed in claim 12 or 13 characterized in that

 - at least one second parameter (Para 1, Para 2, Para 5) can be altered by an adjusting movement of the manual operating means (3) with a third and/or a fourth of the plurality of degrees of freedom, where the third and/or the fourth degree of freedom correspond to an orientation of the alterable parameter (Para 1, Para 2, Para 5) in the active presentation area (230.2, 230.3, 230.4),
 - where the altered second parameter (Para 1, Para 2, Para 5) is stored by an adjusting movement of the operating means (3) with the fifth degree of freedom, and the active presentation area (230.2, 230.3, 230.4) is exited.

15. The control system as claimed in claim 14, characterized in that the at least one second parameter (Para 1, Para 2, Para 5) represents a "fader" or "volume" or "bass" or "treble" function within an audio application.

16. The control system as claimed in claim 14 or 15, characterized in that the first and the second parameter (Para 3, Para 4, Para 6, Para 1, Para 2, Para 5) are altered on the same menu level and in the same presentation area (230.2).

17. The control system as claimed in one of claims 1 to 16, characterized in that with a vertical arrangement of the at least one entry or of the at least one parameter (Para 1, Para 2) in the active presentation area (230.1, 230.3, 230.4)

- the first degree of freedom is the manual operating means (3) being slid in a positive y direction,
- the second degree of freedom is the manual operating means (3) being slid in a negative y direction,
- the third degree of freedom is the manual operating means (3) being slid in a positive x direction,
- the fourth degree of freedom is the manual operating means (3) being slid in a negative x direction, and
- 30 - the fifth degree of freedom is the manual operating means (3) being pressed in a negative z direction in an xyz coordinate system.

18. The control system as claimed in one of claims 1 to 16, characterized in that with a horizontal arrangement of the at least one entry (E1 to E5, E8, E9) or of the at least one parameter (Para 3, Para 4) in the active presentation area (230.5, 230.6, 230.8)

- the first degree of freedom is the manual operating means (3) being slid in a positive x direction,
- the second degree of freedom is the manual operating means (3) being slid in a negative x direction,
- the third degree of freedom is the manual operating means (3) being slid in a positive y direction,
- 10 - the fourth degree of freedom is the manual operating means (3) being slid in a negative y direction, and
- the fifth degree of freedom is the manual operating means (3) being pressed in a negative z direction in an xyz coordinate system.